WHAT IS CLAIMED IS:

1. An acidic polishing slurry comprising:

(a) from about 0.1 to about 5%, by weight, of a colloidal silica abrasive, and

(b) from about 0.5 to about 10%, by weight, of a fluoride salt.

2. The polishing slurry according to Claim 1, wherein the colloidal silica abrasive is present in a quantity ranging from about 0.1 to about 3.5% by weight and the fluoride salt is present in a quantity of from about 1 to about 6%, by weight.

3. The polishing slurry according to Claim 1, wherein the fluoride salt is an ammonium salt.

4. The polishing slurry according to Claim 3, wherein the fluoride salt is ammonium fluoride or ammonium hydrogen fluoride.

5. The polishing slurry according to Claim 4, wherein the fluoride salt is ammonium hydrogen fluoride.

6. The polishing slurry according to Claim 1, wherein it has a pH at 22°C ranging from about 2 to about 6.

7. The polishing slurry according to Claim 1, wherein the colloidal silica has a mean particle size of from about 10 nm to about 1 μm.

8. The polishing slurry according to Claim 7, wherein the colloidal silica has a mean particle size of from about 20 nm to about 100 nm.

9. A method comprising polishing a composite material containing silica and silicon nitride with an acidic polishing slurry comprising:

(a) from about 0.1 to about 5%, by weight, of a colloidal silica abrasive, and

(b) from about 0.5 to about 10%, by weight, of a fluoride salt.